

FIC PA-2013 PCI/AGP SYSTEM BOARD BOARD LEVEL COMPATIBILITY TEST REPORT

Document Number: *MB-399*
Product Version: *V 1.2*
BIOS Version: *AWARD 1.13JF11*
Chipset: *VIA Apollo MVP3*
 598AT_3055B+586B_3041B

Manager	Supervisor	Writer

FIC Research & Development Department
5F #52 Min-Chuan Road, Hsin-Tien City Taipei, Taiwan, R.O.C
Tel : 886-2-918-6001 Fax : 886-2-915-6728

Update: 25-Jun-1998

TABLE OF CONTENTS

1. Introduction
2. Mainboard Configuration
3. Mainboard Specification
4. Jumper Function Verification
5. Microsoft Hardware Compatibility Logo Tests
6. Field (Stress) Test : Dynamic Burn-in Tests
7. Hardware Compatibility Products List
 - 7.1 CPU
 - 7.2 Memory
 - 7.2.1 Pipeline Burst SRAM
 - 7.2.2 DIMM Module(EDO/SDRAM/PC100)
 - 7.2.2.1 SDRAM
 - 7.2.2.2 EDO
 - 7.2.2.3 PC100 SDRAM
 - 7.2.3 SIMM Module(EDO/FPM)
 - 7.3 Add-on Cards
 - 7.3.1 AGP Display Adapter Products
 - 7.3.2 PCI Display Adapter Products
 - 7.3.3 SCSI Adapter Products
 - 7.3.4 Network Card Products
 - 7.4 Storage
 - 7.4.1 Floppy Disk Drive Products
 - 7.4.2 IDE Fixed Disk Drive Products
 - 7.4.3 ATAPI CD-ROM Device Products
 - 7.4.4 SCSI Disk Drive Products
 - 7.4.5 SCSI CD-ROM Products
 - 7.4.6 SCSI Peripheral Products
 - 7.4.7 ATAPI Peripheral Drive (IDE Interface)
 - 7.5 Multimedia
 - 7.5.1 Sound Blaster Products
 - 7.5.2 MPEG Video Products
 - 7.5.3 TV Tuner Display Products
 - 7.5.4 DVD Kit Products
 - 7.5.5 Joystick & Game Pad Pro
 - 7.6 Power Supply Products
 - 7.7 Peripherals
 - 7.7.1 Mouse Products
 - 7.7.2 Printer Peripheral Products
 - 7.7.3 USB Device Products
 - 7.7.4 FAX / Modem Products
8. Software Compatibility Test Suite
 - 8.1 Base Operating Systems
 - 8.2 Operating Systems for Japanese
 - 8.3 Tested Software List
 - 8.3.1 CAD
 - 8.3.2 CD Title



- 8.3.3 CD Title Game
- 8.3.4 CD Title Multimedia
- 8.3.5 Communication
- 8.3.6 Database
- 8.3.7 Diagnostic Program
- 8.3.8 Graphics
- 8.3.9 Internet
- 8.3.10 Presentation
- 8.3.11 Program
- 8.3.12 Scan
- 8.3.13 Suites
- 8.3.14 Time Management
- 8.3.15 Tools
- 8.3.16 Word Processor

1. Introduction

FIC's motherboards undergo a comprehensive suite of stringent software and hardware compatibility tests to ensure that they can not only run a complete range of operating systems and software packages, but that they can also be installed with a full selection of add-on cards and peripheral devices, such as VGA, SCSI, and network adapters as well as HDDs, FDDs, CD-ROM Drives and Fax/Modems. A board is deemed to have passed the compatibility testing suite when it has met the following criteria:

- All application software available for IBM compatible products works properly.
- All common internal and external hardware available to the IBM AT-Bus and PCI compatible systems functions properly.
- All hardware and software can be installed according to the instructions provided to the user.
- All legal configurations (IRQ, I/O addresses, DMA levels) function properly.
- All applications have been tested with and without drivers provided on the support disk.
- All operating systems have been installed and tested with each processor, with and without the most critical mode selected by setup.



2. Mainboard Configuration

Model Name : PA-2013 PCB Rev 1.2
System BIOS : AWARD 1.13JF11
Core Chipset : VIA Apollo MVP3
VT82C598AT_3055B+VT82C586B_3041B
I/O Controller : Winbond 83877TF
From Factor : AT-Pentium Processor Based Mainboard

3. Mainboard Specification

The mainboard hardware portion was configured as following:

Item	Description
System Core Logic	VIA Apollo MVP3 (VT82C598AT+VT82C586B)
	AGP, Enhanced IDE support PIO/DMA2/ATA33, USB, KBC, RTC
System Cache	512K / 1MB Pipeline Burst SRAM
CPU	Intel P54C/P55C, Cyrix 6x86L/6x86MX, AMD K5/K6, IDT C6
System Memory	Maximum : 768MBytes
	168pins x3 socket, single RAS and Double RAS RAM Module
	SDRAM / EDO DIMM & EDO SIMM module
PCI Bus Clock	Synchronous mode (depended on CPU Clock divide by 2), PCI 2.1
System BIOS	Flash ROM, APM1.2, PnP, RTC Alarm Resume, Resume by Ring, Spread Spectrum Modulated, Instant-off(ATX)
System Slots	1 AGP, 4 PCI and 2 ISA slots
IO Core logic	Winbond W83877TF Support Normal, EPP, ECP mode and IR interface
H/W Monitor	LM75 /LM78 CPU Temperature, CPU/Chassis FAN, Voltage

4. Jumper Function Verification

Description	Jumper Name	Default Option	Status
Speaker Connector	SPK	Open	Pass
Keyboard Lock and Power LED	KB_LOCK	Open	Pass
Turbo LED Connector	TB_LED	Open	Pass
Suspended Switch	SP_SW	Open	Pass
Suspended LED	SP_LED	Open	Pass
IDE LED Connector	IDE_LED	Open	Pass
Reset Switch	RST	Open	Pass
Remote Power Switch	RPW_SW	Open	Pass
CPU FAN Connector	FAN1	Open	Pass
Chassis FAN Connector	FAN2	Open	Pass
Chassis Connector	CHASSIS1	Open	Pass
Clear Password Switch	CPS	Open	Pass
Wake up On Lan	RWU	Open	Pass
BIOS Boot Block Select	EP1/EP2	1-2 / 1-2	Pass
CPU Voltage Sector	VR	7-8	Pass
SRAM MODE	SRAM	1-2	Pass
CPU Clock Rate	FREQ1/ FREQ2/ FREQ3	1-2 / 1-2 /1-2	Pass
CPU Clock Selector	CLK1/ CLK2/ CLK3	1-2 / 1-2/ 2-3	Pass
SDRAM Clock	CLK4	2-3	Pass
Memory Frequency	SDRAM	1-2	Pass
System Frequency	NBCLK1/ NBCLK2	1-2/2-3	Pass

5. Microsoft Hardware Compatibility Logo Tests

Operating System	Company	HCT Name	Result
Windows NT Version 4.00 Windows 95 OSR2 Windows 98 Beta3	Microsoft	HCT 7.2	Pass
Test Configurations	AMD K6-266 On board 32MB Memory. Quantum SE3200 3.2GB Ultra DMA/33 HDD ATI Rage Pro 4MB SGRAM AGP VGA Creative SoundBlaster AWE64 PnP Sound Card 3COM 3C509B PCI Lan Card		



6. Field (Stress) Test: Dynamic Burn-in Tests

Software Name	Duration	Result
BAPCO 95 for Windows NT	24 hr.	Pass
Test Configurations for NT	AMD K6/266 266MHz Matrox Millennium II 8MB WRAM PCI VGA On board 64MB SDRAM Memory Seagate Medialist ST-34342A Ultra DMA/33 4.3GB	
Novell Server version 4.11	48 hr.	Pass
Test Configurations for Novell	Intel Pentium MMX 233MHz Adaptec AHA 3940 Quantum Fireball SE Ultra SCSI 2.1GB HDD 3COM 3C595 10/100 PCI Lan card (Connect to 4-6 wks) On board 64MB Memory ATI Rage IIC 4MB PCI VGA Test Program : Novell Nwtest	
SCO UNIX Open Desktop 5.0.4	24 hr.	Pass
Test Configurations for SCO	AMD K6-300MHz SONY CDU-625 SCSI CD-ROM IBM DCAS34330 Ultra Wide SCSI 4.3GB HDD On board 64MB Memory VGA ATI Rage Pro 4MB Test Program : Create a batch file	
IBM OS/2 Warps 4.0	24 hr.	Pass
Test Configurations for OS/2	Cyrix 6x86MX PR233 Quantum Fireball SE 4.3GB IDE HDD VGA S3 ViRGE 3D On board 64MB Memory Test program : Create Batch file	
Winstone 98 Under WIN95	48hr.	Pass
Test Configurations	AMD K6-2-300MHz Maxtor Diamond 88400D8 Ultra DMA 8.4GB HDD On board 32MB Memory. Matrox Millennium II 8MB WRAM PCI VGA Test condition: Run continuous demo mode.	

7. Hardware Compatibility Products List

7.1 CPU :

Vender	Description	Voltage	Clock
AMD	K5/PR100	3.52V	1.5X66MHz
	K5/PR133	3.52V	1.5X66MHz
	K5/PR166	3.52V	1.75X66MHz
	K5/PR200	3.52V	2.0X66MHz
	K6/166	2.9V	2.5X66MHz
	K6/200	2.9V	3.0X66MHz
	K6/233	3.2V	3.5X66MHz
	K6/266	2.2V	4.0X66MHz
	K6-2/ 266 (3D/ 266)	2.2V	2.5X100MHz
	K6/300	2.2V	4.5X66MHz
	K6-2/ 300 (3D/ 300)	2.2V	3.0X100MHz
Cyrix / IBM	6x86L-P200+GP	2.8V	2.0X75MHz
	6x86MX-PR166	2.9V	2.0X66MHz
	6x86MX-PR200	2.9V	2.5X66MHz
	6x86MX-PR200	2.9V	2.0X75MHz
	6x86MX-PR233	2.9V	2.5X75MHz
	6x86MX-PR233	2.9V	2.0X83MHz
	6x86MX-PR266	2.9V	2.5X83MHz
	M II-300	2.9V	3.0X75MHz
	6x86MX-PR333	2.9V	3.0X83MHz
INTEL	P54C-100	3.3V	1.5X66MHz
	P54C-133	3.3V	2.0X66MHz
	P54C-166	3.3V	2.5X66MHz
	P54C-200	3.3V	3.0X66MHz
	P55C-166	2.8V	2.5X66MHz
	P55C-200	2.8V	3.0X66MHz
	P55C-233	2.8V	3.5X66MHz

7.2 Memory

7.2.1 Pipeline Burst SRAM

Type	Vendor	Parts No	Description
Cache	UMC	UM61L6464AF-5	64kx64
	UT	UT6164C64AQ-5	64kx64

7.2.2 DIMM Module (SDRAM/EDO/PC100)

7.2.2.1 SDRAM

Vender	IC Part No.	EC C	Size	Side	Module No.
Fujitsu	811171622A-100FN	No	8MB	S	
	81117622A-100FN	No	16MB	S	
	81117822E-100FN	No	32MB	D	
	81164842A-100FN	Yes	128MB	D	
HYUNDIA	HY57V168010A-10	No	16MB	S	HYM7V64200 TFG-10
	HY57V168010A-10	No	16MB	S	MEMDIMO12AAWW
	HY57V168010A-10	Yes	32MB	D	HYM7V72A400 TFG-10
	HY57V658020TC-10	Yes	64MB	S	HYM7V72A801
	HY57V658020TC-10	No	128MB	D	U8
LGS	GM72V16821BT10	No	16MB	S	
Micron	MT48LC2M8A-10	No	16MB	S	MTBLSDT264AG
	MT48LC2M8A1-10	No	16MB	S	MT8LSDT264AG-662C1
	MT48LC2M8A1-10	No	32MB	S	MT16LSDT464AG-66CL2
	MT48LC2M8A1-10	Yes	32MB	D	MT16LSDT472A6-662C1
Mitsubishi	M5M4V16S30CTP-12	No	16MB	S	MH2S64CZTJ-15
	M5M4V16S30CTP-12	No	32MB	D	MH4S64CZTJ-16
	M5M4V16S30DTP	Yes	32MB	D	M04B032M2EE72208-C3100
NEC	D4516821G5-A67-7	No	16MB	S	MC-452AB644F-A67
	D4516821GS-A12	No	16MB	S	MC-452AB644F-A12
	D4516821GS-A10	No	24MB	S	SM564037074N6CQ
SEC	KM48S2020AT-G12	No	16MB	S	MDS163S-28
	KM48S2020AT-G12	No	16MB	S	KMM366S203AT-G2
	KM48S2020BT-G10	No	16MB	S	KMM366S203BTN-G0
	KM48S2020BT-G10	Yes	32MB	D	KMM374S403BTN-G0
	KM48S2020CT-GH	Yes	32MB	D	M04B032M2EE72208-C2100
	KM416S4030AT-G10	No	64MB	D	KMM366S824AT-G0
	KM48S8030AT-G10	No	64MB	S	KMM366S823AT-G0
SIEMENS	HYB39S16800T-10	No	16MB	S	NYS64V2000GU-10
	HYB39S16800AT-10	No	16MB	S	HYS64V2100GU10
	HYB39S16800AT-10	Yes	32MB	D	HYS72V4120GU10
TI	TMX626812DGE-12A	No	16MB	S	TX2SR64EPU-12A
	TMS626812DGE-12A	No	16MB	S	TM2SN64EPU-12A
	TMS626812DGE-12A	No	32MB	D	TX4SR64EPU-12A
Toshiba	TC59S1616AFT-12A	No	8MB	S	THMY641051AEG-12A
	TC59S1608AFT-12A	No	16MB	S	THMY640231AEG-12A
	TC59S1608AFT-12A	No	16MB	S	
	TC59S1608AFT-12A	No	32MB	D	THMY644041AEG-12A

7.2.2.2 EDO RAM

Vender	IC Part No.	ECC	Size	Side	Module No.
LGS	GM71VS17803GLT6	No	16MB	S	K1
Mitsubishi	M5M4V17405CTP-6S	No	32MB	S	K3

7.2.2.3 PC100 SDRAM

Vender	IC Part No.	ECC	Size	Side	Module No.
Mitsubishi	M5M4V16S30DTP	Yes	32MB	D	M04B032M2EE72208-C3100
Mitsubishi	M5M4V64S30ATP-8	Yes	64MB	S	M04B064M1HE72224-C3100
Mitsubishi	M5M4V64S30ATP	No	128MB	D	1281608S36MI01
NEC	D4516821AG5-A10-7JF	Yes	32MB	D	M04B032M2EE72208-C3100
NEC	D4564841G5-A10-9JF	No	64MB	S	64808S36NE01
NEC	D4564841G5-A10-9JF	No	128MB	D	1281608S36NE01
Fujitsu	81F16822D-102LFN	Yes	32MB	D	M04B032M2EE72208-C2100
Fujitsu	81F64842B-103FN	Yes	64MB	S	M04B064MIHE72224-C3100
Fujitsu	81F64842B-103FN	No	128MB	D	1281608S36FJ01
Hitachi	HM5264165TTB60	No	32MB	S	320416S36HI01
Hitachi	HM5264805TTB60	No	64MB	S	640808S36HI01
Hitachi	HM5264805TTB60	No	128MB	D	1281608S36HI01
SEC	KM416S4030BT-GH	No	32MB	D	320416S26SA01
SEC	KM48S8030BT-GH	No	64MB	S	640808S26SA11
SEC	KM48S8030BT-GH	No	128MB	D	1261608S26SA11#20-23
Toshiba	TC59S6408FTL-80H	Yes	64MB	S	M04B064M1HE72224-C2100
Toshiba	TC59S6408FTL-80H	Yes	128MB	D	120557

7.2.3 SIMM Module (EDO/FPM)

Type	Vendor	Parts No	Description
EDO	SEC	KM416C1204AJ-6	8MB 72pin RAM module 60ns
		KM44C4104AK-6	16MB 72pin RAM module 60ns
	MICRON	MT4C4M4E8DJ-6	32MB 72pin RAM module 60ns
	TI	TMS418169DZ	8MB 72pin RAM module 60ns
	NEC	4218165-60	8MB 72pin RAM module 60ns
	Mitsubishi	M5M418160BJ-7	8MB 72pin RAM module 70ns
Fast Page	NEC	4216100-60	64MB 72pin RAM module 60ns
	Toshiba	TC5117400BSJ-60	32MB 72pin RAM module 60ns

7.3 Add-on Cards

7.3.1 AGP Display Adapter Products

Vendor	VGA Chip	Product Description	RAM
3D Labs	Permedia II	Permedia II AGP	8M SGRAM
ELSA	3D Labs Permedia II	Winner 2000/office	4M SGRAM
Asus	Riva 128	AGP-V3000	4M SGRAM
Cardex	S3 Virge/GX2	Genesis GX2	4M SGRAM
Cardex	Trident 3Dimage 9750	Thunder 3210	4M SGRAM

Cardex	Trident 3Dimage 9850		4M SGRAM
Cardex	3DLabs Permedia II	Power 3D II AGP	4M SGRAM
SiS	SiS 6326	Daytona 3D	4M SGRAM
ATI	Rage pro Turbo	ATI Rage pro Turbo	8M SGRAM
ATI	Rage pro	ATI Rage pro AGP	4M SGRAM
ATI	Rage IIC	ATI Rage IIC AGP	4M SGRAM
Compro	Riva 128	Riva 128	4M SGRAM
Number #9	Number #9	Revolution 3D	4M WRAM

7.3.2 PCI Display Adapter Products

Vendor	VGA Chip	Product Description
ATI	ATI Rage II	ATI Rage II 3D
	ATI Mach64	ATI Mach64
	ATI Mach64	ATI Mach64 VT
Canopus	Tseng	Tseng ET-6000
	S3 Virge/DX	S3 Virge/DX
	S3 Trio64V+	Power Window
Cardex	S3 Virge	S3 Virge
	S3 Trio64V+	S3 Trio64V+ 765
Diamond	S3 964	Stealth 64Video
	S3 968	Stealth 4MB VRAM
ELSA	S3 Virge	Victory 3D-4
	S3 Virge/VX	Winner 2000AVI/3D
	S3 Virge/VX	Winner 3000L 3D
	3D Labs Permedia II	Winner 2000/office
FIC	S3 Virge	1stGrafx-67MP
	S3 Trio64	764-PD
	S3 Trio64V+	1stGrafx-65MP
	S3 Trio62/DX	1stGrafx-65MP2
JAZZ	Alliance/3Dfx	Adrenaline Rush 3D 6MB EDO
Hi-tech	S3 TrioV2/DX	S3 TrioV2/DX
Leadtek	S3 964	WinFast S400
	S3 Virge	WinFast S600
Matrox	MGA-2164WP	Millennium II 8MB WRAM
	MGA-1064SG	Mystique 4MB SGRAM
Number #9	S3 964	GXE 64 Pro
	LSI 128	Image 128
STB	Riva 128	Velocity 128 3D

7.3.3 SCSI Adapter Products

Vendor	Model	Bus	BIOS Ver.	Chipset
Adaptec	AHA-2920 rev.B	PCI	v3.0	36C70
	AHA-2940 rev.D	PCI	v1.2	AIC-7870P
	AHA-2940AU	PCI	v1.21	AIC-7860Q
	AHA-2940UW	PCI	v1.25	AIC-7880P
	AHA-3940	PCI	v1.50	AIC-7870P
	AHA-1520B rev.C	ISA	v1.11	AIC-6370Q
	AHA-1530P rev.C	ISA	v1.04	AIC-3350P
	AHA-1542CF rev.C	ISA	v2.01	AIC-7970Q
	AHA-1542CS rev.B	ISA	v1.01	AIC-7970Q
	AHA-1542CP rev.B	ISA	v1.02	AIC-3370P
Buslogic	BT-946C rev.E	PCI	v4.92E	BA80C30
	BT-948 rev.A	PCI	v4.96F	BA80C32
	BT-950 rev.A	PCI	v1.41d	BA81C15
	BT-958 rev.A	PCI	v4.96F	BA80C32
	BT-930 rev.A	PCI	v1.41d	BA81C15
Future	TMC-3260 rev.C	PCI	v2.0	36C70
	PNP-1630	ISA	v4.0	18PNP300
Initio	INI-9100HA rev.1B	PCI	v1.11	INI-910
	INI-9100UW rev.E	PCI	v1.03	INIC-950P
NCR	NCR-810P	PCI	v3.07	53C810PT
	NCR-825S rev.2.0	PCI	v3.07	53C825
SymBIOS	SYM8751SP rev.1.0	PCI	v4.0	53C875J
Tekram	DC390F	PCI	V2.02	53C875

7.3.4 Network Card Products

Vender	Model	Ver.	Chips No.	Specification	Bus	DRIVE
3COM	3C339	A	TI380C130PGF	TOKEN RING 4/16 MB	PCI	3.0
	3C590	A	3COM40-0196	ETHERNET 10MB	PCI	5.1
	3C595	B	3COM40-0196	ETHERNET 10/100	PCI	5.1
	3C905	A1	3COM40-0336-004	ETHERNET 10/100	PCI	1.2
	509B	A	3COM40-0130-004	ETHERNET PnP 10MB	ISA	4.3
ACCTO	ACC40P	02	MPX2	ETHERNET PnP	ISA	1.04
	EN1207	01B	Digital 21140-AB	ETHERNET 10/100	PCI	3.03
CNET	CNET970	A	AM79C970AKC	ETHERNET 10MB	PCI	1.1
DLINK	DE220	C1	DL2517B	ETHERNET 10MB	ISA	1.34
	EZ2000P	A1	SM909F	ETHERNET 10MB	ISA	950701
EVRX	EV2064	002	NC16810	ETHERNET PnP 10MB	ISA	1.1
IBM	4H8098	A	38H6302	TOKEN RING 4/16 MB	PCI	1.01
	92G7632	B	41H8452	TOKEN RING PnP	ISA	3.2
	EN237	03	AM79C970AKC	ETHERNET 10MB	PCI	2.0
	EN374	001	INTEL S82557	ETHERNET 10/100	PCI	2.11
	TR900	01	85H3816	TOKEN RING 4/16	PCI	1.1
INTEL	E100B	001	INTEL S82557	ETHERNET 10/100	PCI	2.51
	PLCA8220B	002	INTEL S82595FX	ETHERNET PnP	ISA	1.51
	PRO10+	004	INTEL S82557	ETHERNET 10MB	PCI	3.03
OLICOM	OC-2183	2	TI TNETE110PCE-	ETHERNET 10MB	PCI	1.0
	OC-2185	04	TI TNETE110PCE-	ETHERNET 10MB	PCI	1.0
	OC-2325	2	TI TNETE100PCE-	ETHERNET 10/100	PCI	1.06
	OC-3136	5	OLICOM11900002	TOKEN RING 4/16MB	PCI	1.05
	OC-3118	4	OLICOMP11900	TOKEN RING PnP	ISA	1.02
	OC-4048	F	TI 380PCIPCW	TOKEN RING 4/16MB	PCI	1.21
THOMA	TC4145	A	THOMAS316-	TOKEN RING PnP	ISA	2.01
SMC	EtherEZ	A	SMC83C795QF	ETHERNET PnP	ISA	0.14
	SMC9332	A	Digital21140	ETHERNET 10/100	PCI	1.1

7.4 Storage

7.4.1 Floppy Disk Drive Products

Vendor	Model Name	Product Description	Bus I/F
EPSON	SMD-1340-301	1.2MB Floppy Disk Drive	FDC
	SMD-1304-301	1.44 MB Floppy Disk Drive	FDC
Mitsumi	D359T3	1.44MB Floppy Disk Drive	FDC
	D353T5	1.44MB Floppy 3 Mode Disk Drive	FDC
	D353T6	1.44MB Floppy 3 Mode Disk Drive	FDC
Panasonic	JU-475-3AG1	1.2MB Floppy Disk Drive	FDC
	JU-257	1.44 MB Floppy Disk Drive	FDC
Samsung	SFD-321B/JB	1.44 MB Floppy Disk Drive	FDC
Sony	MPF-520-1	1.44MB Floppy Disk Drive	FDC
TEAC	FD-235HG	1.44 MB Floppy Disk Drive	FDC
	FD-235HF	3 Mode MB Floppy Disk Drive	FDC

7.4.2 IDE Fixed Disk Drive Products

Vendor	Model Name	Mode	Capacity
Fujitsu	M1623TAU	PIO4 / DMA2	1.7GB
	MPB3032AT	Ultra DMA 33	3.2GB
	MPA3043AT	Ultra DMA 33	4.3GB
	MPA3052AT	Ultra DMA 33	5.2GB
	MPB3064AT	Ultra DMA 33	6.4GB
IBM	DHEA-36480	Ultra DMA 33	6.4 GB
Maxtor	Diamond 84320D4	Ultra DMA 33	4.3GB
	Diamond 86480D6	Ultra DMA 33	6.4GB
	Diamond 88400D8	Ultra DMA 33	8.4GB
Quantum	Bigfoot CY6480A	PIO4 / DMA2	6.4GB
	Fireball TM 3840AT	PIO4 / DMA2	3.8GB
	Fireball SE 4.3AT	Ultra DMA 33	4.3GB
	Fireball ST 1.6AT	Ultra DMA 33	1.6GB
	Fireball ST 6.4AT	Ultra DMA 33	6.4GB
	Bigfoot TX 4300A	Ultra DMA 33	4.0GB
	Bigfoot TX 12000A	Ultra DMA 33	12.0GB
Seagate	ST-32120A	PIO4 / DMA2	2.1GB
	ST-36450A	PIO4 / DMA2	6.4GB
	Medialist pro ST-34342A	Ultra DMA 33	4.3GB
	Medialist pro ST-36451A	Ultra DMA 33	6.4GB

7.4.3 ATAPI CD-ROM Device Product

Vendor	Model Name	Product Description	Interface
Creative	SR-8581-B	ATAPI DVD-ROM	IDE
Cyberdrive	120D	ATAPI CD-ROM 12X	IDE
Mitsumi	CRMC-FX162T4	ATAPI CD-ROM 16X	IDE
	CRMC-FX240S	ATAPI CD-ROM 24X	IDE
NEC	CDR-1400B	ATAPI CD-ROM 8X	IDE
	CDR-1700A	ATAPI CD-ROM 20X	IDE
Panasonic	CR-584B	ATAPI CD-ROM 12X	IDE
Torisan	CDR-S18	ATAPI CD-ROM 8X	IDE
	CDR-S112	ATAPI CD-ROM 12X	IDE
	CDR-S240	ATAPI CD-ROM 24X	IDE
Toshiba	XM5702B	ATAPI CD-ROM 16X	IDE
	SD-M1002	ATAPI DVD-ROM	IDE

7.4.4 SCSI Disk Drive Products

Vendor	Model	Capacity	Type
IBM	DCAS34330	4.5GB	Ultra SCSI
	DCAS34330	4.3GB	Ultra Wide SCSI
Quantum	MV54S011	540MB	SCSI-II
	525S	540MB	SCSI-II
	Fireball SE	2.1GB	Ultra SCSI
	Atlas II	4.5GB	Ultra SCSI
Seagate	ST-34555N	2.2GB	Ultra Wide SCSI
	ST-32272W	2.2GB	Ultra Wide SCSI
WD	WDE210-0007	4.3GB	Ultra Wide SCSI

7.4.5 SCSI CD-ROM Products

Vendor	Model	Speed	Type
CHINON	CDS-535	2x	Narrow SCSI-II
NEC	CDR-222	2x	Narrow SCSI-II
Pioneer	DR-533	24x	Narrow SCSI-II
Plextor	PX-32Tsi	32x	Ultra SCSI
Panasonic	CR-508	24x	Narrow SCSI-II
NEC	CDR-1910	32x	Ultra SCSI
TEAC	CD-523S	32x	Ultra SCSI
Toshiba	XM-6210B	32x	Ultra SCSI
SONY	CDU55S	2x	Narrow SCSI-II
SONY	CDU-625	24x	Narrow SCSI-II

7.4.6 SCSI Peripheral Products

Vendor	Model	Type
Fujitsu	MO M2512A2	internal 50 pin
iomega	JAZ V1000Si	internal 50 pin
	JAZ V1000S	external 50 pin
	Ditto IO80 Fi	internal 34 pin
	Ditto IO80-PX3	external 25 pin
	ZIP Z100S	external 25 pin
Up Selec	External Box	external 50 pin

7.4.7 ATAPI Peripheral Drive

Vendor	Product Description	Bus I/F
Mitsubishi	MF357G-111MA LSA-120	IDE
Panasonic	LKM-F434-105 LS-120	IDE
Zip	Z100 Zip IDE DRIVE 29ms 100MB	IDE

7.5 Multimedia

7.5.1 Sound Blaster Products

Vendor	Model Name	Product Description	Bus I/F
Advance	ALS-100	Advance Logic PnP Sound	ISA PnP
	ALS-300	Advance Logic PnP Sound	PCI
AMD InterWave	Inter Wave	AMD AM78C201KC PnP Sound	ISA PnP
Creative	AWE32 CT-3990	Creative AWE32 ISA PnP Sound Blaster	ISA PnP
	AWE32 CT-3600	Creative AWE32 ISA PnP Sound Blaster	ISA PnP
	AWE64 CT-4380	Creative AWE64 ISA PnP Sound Blaster	ISA PnP
	AWE64 CT-4520	Creative AWE64 ISA PnP Sound Blaster	ISA PnP
	CT-4100	Creative ViBRA16CL PnP SoundBlaster	ISA PnP
ESS	ESS-1868	ESS ISA PnP Sound Blaster	ISA PnP
Formosa	SC-970	ESS 1948F PCI Sound Card	PCI
	SC-972	ENSONIQ ES1370 PCI Sound Card	PCI
	SC-4237	Crystal 4237B PnP Sound Blaster	ISA PnP
	SC-202	ESS 1869F PnP Sound Blaster	ISA PnP
S3	Sonic Vibes	S3 Sonic Vibes PCI Sound Card	PCI

7.5.2 MPEG Video Products

Vendor	Model Name	Product Description	Bus I/F
--------	------------	---------------------	---------

Creative	Video Blaster SE-100	Creative SE-100 MPEG card	ISA
	Video Blaster CT-6000	Creative CT-6000 Video Capture board	ISA
Formosa	MPEG-MP020	Formosa Full Function MPEG card	ISA
	MPEG-MP021	Formosa Full screen MPEG	ISA
	TV-Tuner	Formosa TV-Tuner board	ISA
	MPEG-MP011A	Formosa Full Function MPEG Short card	ISA
RealMagic	MPEG	Real Magic Full Function MPEG card	ISA

7.5.3 TV Tuner Display Products

Vendor	Model Name	Product Description	Bus I/F
AlTech	AlTech vision for Multimedia	Wave Watcher TV-II	ISA
Diamond	DTV 1100	Diamond Multimedia Upgrade	ISA
Matrox	Media TV	Media TV MGA Millennium	ISA

7.5.4 DVD DEVICE Products

Vendor	Model Name	Product Description	Interface
Creative	MK5000	Creative PC-DVD Kit Include MATSUSHITA SR-8581-B DVD-ROM and LK-MAEP391A1 MPEG-2/Dolby Digital Decoder Board	PCI
Toshiba	Toshiba DVD	Toshiba PC-DVD Kit Include Toshiba SD-M1002 DVD-ROM and CINEMASTER MPEG-2/Dolby Digital DVD Board	PCI

7.5.5 Joystick & Game Pad

Vendor	Product Description
Gravis	Game Pad Pro
Microsoft	SideWinder 3D Pro
PHAZER PAD	Advanced Digital Gamepad for DOS & Windows 95

7.6 Power Supply Products

Vendor	Model Name	Product Description
HIPRO	HP-200NLXAG	200W ATX Remote Power Supply
	HP-200NLXAA	200W ATX Remote Power Supply
	HP-200ATXAG	200W ATX Remote Power Supply
Leadman	LP-6100ATX	250W ATX Remote Power Supply
Sea Sonic	SSG-200GTX	200W ATX Remote Power Supply
Tiger	TG-2006-B	200W ATX Remote Power Supply
	TG-2007-B	200W ATX Remote Power Supply
YHI	YS-6200DJ	200W ATX Remote Power Supply
Enhance	E520	200W PS II
	V520	200W PS II
Lead Year	ESP-2200	200W PS II
	ES-2250	250W Remote Power Supply
Seventeam	ST-230WHF	230W PS II
	ST-211WHF	200W PS II

7.7 Peripherals

7.7.1 Mouse Products

Vendor	Model Name	Product Description	Bus I/F
Genius	Serial	Serial Mouse 3-Button	Serial
KYE	Niche-N201	Serial Mouse (2 button)	Serial
LEO	AD-M36	Serial Mouse 3-Button	Serial
Logitech	M-S34	PS/2 compatible Mouse	PS/2
	M-M34	Serial Mouse	Serial
Microsoft	Microsoft Mouse	Microsoft Serial - PS/2 Mouse	Serial/ PS2
NEC	M-S28	Serial Mouse	Serial

7.7.2 Printer Peripheral Products

Vendor	Model Name	Product Description	Bus I/F / Mode
D-Link	DE-EPP	D-Link EPP Pocket LAN	LPT / ECP
HP	LaserJet III	HP LaserJet III	LPT
	LaserJet 5P	HP LaserJet 5P support IR Interface	LPT
Road	Express T305	External Parallel Port Tape Backup	LPT
Runner	Express FD144	External Parallel Port Floppy Drive	LPT / ECP
	Express CD-4X	External Parallel Port CD-ROM Driver	LPT / ECP
	Express XD	External Parallel Port Hard Driver	LPT / ECP
Zip	ZIP100	Iomega ZIP 100 Parallel port	LPT

7.7.3 USB Device Products

Type	Vendor	Product Description
HUB	Philips	S87C652-4N40
	FIC	AWM 2835
Joystick	Thrusituaster	TOP GUN
Keyboard	Chicony	KU-8933-1
	Silitek	SK-6000
Mouse	Cypress	CY7C63000
	Logitech	M-UA34
	Genius	K2DMS41.ASM

7.7.4 FAX / Modem Products

Vendor	Model Name	Bus I/F
ADI	CommuPack 56K SVD	External
Askey	V1433VQH-U PnP	Internal
FIC	33.6K PnP	Internal
GVC	56K/K56 FLEX ASVD	External
Motorola	VoiceSURFR 56K	External
RockModem	56K	External
USR	Sportster 56K Faxmodem	External

8. Software Compatibility Test Suite

8.1 Base Operating System

The board is tested to ensure that it runs a complete a range of Operating Systems and thus operate in all network environments The board Power Management and Remote functions are also tested.

Operating System	Version	Language	Company	Status
IBM DOS	7.0	German	IBM	Pass
IBM OS/2 Warp	4.0	English	IBM	Pass
	3.0	German	IBM	Pass
MS DOS	6.22	English	Microsoft	Pass
	6.22	German	Microsoft	Pass
MS Windows 95	950C	English	Microsoft	Pass
	950B	Chinese	Microsoft	Pass
Novell Network	3.12	English	Novell	Pass
Novell Network	4.10	English	Novell	Pass
Novell Network	4.11	English	Novell	Pass
Windows for Workgroups	3.11	English	Microsoft	Pass
Windows NT Advance Server	3.51	English	Microsoft	Pass
Windows NT Workstation	3.51	English	Microsoft	Pass
Windows NT Workstation with Service Pack 3	4.0	English	Microsoft	Pass
Windows NT Server	4.0	English	Microsoft	Pass
Windows NT Server	4.0	Chinese	Microsoft	Pass

8.2 Operating System for Japanese

Operating System	Version	Language	Company	Status
E Ti Lan	6.3	Japanese	E Ti Lan	Pass
IBM OS/2 Warp	3.0	Japanese	IBM	Pass
Lotus Windows 95 Super Office96		Japanese	Microsoft	Pass
Microsoft Office Designed for Windwos95	7.0	Japanese	Microsoft	Pass
MS Windows 95	4.0a	Japanese	Microsoft	Pass
Novell Network	4.11	Japanese	Novell	Pass
Windows NT Workstation	4.0	Japanese	Microsoft	Pass
Windows NT Server	4.0	Japanese	Microsoft	Pass

8.3 Software Applications

Item	Descriptions	Version	O.S.	Language	Status
------	--------------	---------	------	----------	--------



CAD	3D Disign Plus	2.0	Windows	English	Pass
	AutoCAD	R13	DOS	English	Pass
	AutoCAD	R13	Windows 95	English	Pass
	Animator Pro	1.3	DOS	English	Pass
	OrCAD	4.20	DOS	English	Pass
	3D Studio	4.0	DOS	English	Pass
	Micro Station	5.0	Windows	English	Pass
	PCAD	4.5	DOS	English	Pass
CD Title	Action	3.0	Windows	English	Pass
	Calendar Address Book		Windows	English	Pass
	The Ultrasound CD		Windows	English	Pass
	TripMaker		Windows	English	Pass
CD Title Game	3D Vltra Pin Ball	1.0	Windows 95	English	Pass
	Duke Nukem 3D	1.0	DOS	English	Pass
	Toy Story	1.0	Windows	English	Pass
	Mech Warrior2	1.0	Windows 95	English	Pass
	AH-64D longbow	1.0	DOS	English	Pass
	NFL Football Trivia Challenge	1.0	DOS	English	Pass
	Wing Commander III	4.0	DOS	English	Pass
	MYST	1.0	Windows 95	English	Pass
	Indy Car II Racing	1.0	DOS	English	Pass
	International Tennis Open	1.0	DOS	English	Pass
	Escape from Cyber City	1.0	DOS	English	Pass
	HAVOC	1.0	Window 95	English	Pass
	Flight Unlimited	1.0	DOS (CD)	Chinese	Pass
	Flight Unlimited	1.0	DOS (Chinese)	Chinese	Pass
	Day of the TenTacle(CD)			Chinese	Pass
	Day of the TenTacle(CD)			Chinese	Pass
	Descent (CD)©)			English	Pass
	Tle Fighter Wars (CD)©)			English	Pass
	DIABLO BLIZZARD (CD)		Win95 or NT4.0	English	Pass
	DARK FORCES WARS (CD)		DOS (CD)	English	Pass
	WARCRAFT II TIDES OF DARKNESS		DOS, WIN31 & WIN95	English	Pass
	FULL THROTTLE (CD)©)			English	Pass
	FRONT LINES (Chinese CD)			Chinese	Pass



Item	Descriptions	Version	O.S.	Language	Status
	Command & Conquer Red Alert			English	Pass
	Master of Orion II Battle at Antares		WIN95	English	Pass
	Command & Conquer			English	Pass
	Broken & Word			English	Pass
	War Wind		WIN95	English	Pass
	Hellbender		WIN95	English	Pass
	The Beast Within			English	Pass
	Gamebreak			English	Pass
	PRIVATEER2 THE DARKENING			English	Pass
	Magic 2 Carpet			English	Pass
	Dagger fall			English	Pass
	Sky NET			English	Pass
	THE NEED FOR SPEED SE			English	Pass
	Crusader No Regret			English	Pass
	M.A.X.			English	Pass
	Mech Warrior 2 Mercenaries			English	Pass
	PGA TOUR 96			English	Pass
	Blood & Magic			English	Pass
	Wing Commander III			English	Pass
	CRUSADER NO REMORSE			English	Pass
	Descent II			English	Pass
CD Title Multimedia	Cinderella		Windows	English	Pass
	LivingBook GrandMa&Me		Windows	English	Pass
	Top Gun		Windows	English	Pass
	Multimedia SuperPack		Windows	English	Pass
	Compton's Interactive Encyclopedia		Windows	English	Pass
	Adams Family		Windows	English	Pass
	Blank Rain		Windows	English	Pass
Communication	cc: Mail/Add-on		Windows	English	Pass
	BITWare	3.30	Windows 95	English	Pass
	Delrina CommSuite	1.0	Windows 95	English	Pass
	WinFAX Pro	7.0	Windows 95	English	Pass
	WinFAX Pro for Win 95	4.0	Windows 95	English	Pass
	LapLink	7.0A	Windows 95	English	Pass
	Norton Anywhere	1.0	Windows	English	Pass

Item	Descriptions	Version	O.S.	Language	Status
Database	Approach 96	1.0	Windows 95	English	Pass
	Lotus Notes	4.0	Windows 95	English	Pass
	Notes	3.0	Windows	Chinese	Pass
	Borland Visual Dbase	5.5	Windows 95	English	Pass
	Visual Foxpro	3.0A	Windows 95	English	Pass
	Visual dBASE Compiler	5.5	Windows 95	English	Pass
	Borland Delphi	3.0	Windows 95	English	Pass
	FoxBase Microsoft	2.1	Windows	English	Pass
	FoxPro Microsoft	5.0	Windows 95	English	Pass
Diagnostic Program	Bapco95 for Win NT	1.0	Windows NT	English	Pass
	Bapco95 for Win 95	1.0	Windows 95	English	Pass
	PC Magazine Winstone 98	1.0	Windows 95	English	Pass
	Speed for Win95	3.0	Windows	English	Pass
	QAPLus	5.51	DOS	English	Pass
	QAPLus	5.52	DOS	English	Pass
	QAPLus	7.0	Windows 95	English	Pass
	Landmark(Speedcom)	2.0	DOS	English	Pass
	Check IT Pro	4.0	Windows 95	English	Pass
	Check IT Pro	3.0	Windows 95	English	Pass
Graphics	Corel Draw	6.0	Windows 95	English	Pass
	Corel Draw	6.0	Windows 95	Chinese	Pass
	Fractul Design Painter	4.0	Windows 95	English	Pass
	Windows Draw	3.0	Windows	English	Pass
	MS PowerPoint	4.0	Windows	English	Pass
	Designer	4.1	Windows	English	Pass
	Pagemaker	6.5	Windows 95	English	Pass
	Visio HOME	4.0	Windows 95	English	Pass
	Photo Shop Pro	3.05	Windows 95	English	Pass
	MS-Publisher	3.0	Windows 95	English	Pass
Internet	Winsock	1.0	Windows 95	English	Pass
	Netscape	3.01	Windows 95	English	Pass
	Internet Explore	2.0/3.0	Windows 95	English	Pass
	Microsoft FrontPage 97	2.X	Windows 95	English	Pass
	Winspan	4.0	Windows	English	Pass
Presentation	MS PowerPoint	7.0	Windows 95	English	Pass



Item	Descriptions	Version	O.S.	Language	Status
Program	MS Visual Basic	5.0	Windows 95	English	Pass
	MS Visual C++	4.0	Windows 95	English	Pass
	Macro Assembler	6.11	DOS	English	Pass
	Borland C++	4.0	Windows	English	Pass
	Borland C++	5.0	Windows 95	English	Pass
	Turbo C++	3.1	Windows	English	Pass
	Borland Delphi	2.0	Windows 95	English	Pass
Scan	PC-cillin 97	3.0	Windows 95	English	Pass
	Norton Antivirus	2.0	Windows 95	English	Pass
Suites	Lotus SMART Suites 96	1.0	Windows 95	English	Pass
	MS Work for Windows	3.0	Windows	English	Pass
	MS Work for Windows95	4.0	Windows 95	English	Pass
	MS Office for Windows	4.3	Windows	English	Pass
	MS Office for Windows	4.3	Windows	Chinese	Pass
	MS Office 97 for Windows95	7.0	Windows 95	English	Pass
TimeManagement	MS Project	4.1	Windows 95	English	Pass
	Organizer	2.1T	Windows	Chinese	Pass
Tools	AfterDark	3.0	DOS	English	Pass
	AfterDark	3.0	Windows	English	Pass
	AfterDark for Win95	3.0	Windows 95	English	Pass
	Xing Soft MPEG Player	3.0	Windows 95	English	Pass
	Central Point Backup	1.0	Windows	English	Pass
	Desq View386	2.7	Windows	English	Pass
	Norton Backup	2.2	Windows	English	Pass
	Norton Commander	5.0	DOS	English	Pass
	Norton Desktop	3.0	Windows	English	Pass
	Norton Utility	9.0	Windows 95	English	Pass
	Norton Utility	8.0	Windows	English	Pass
	Microsoft Plus!	1.0	Windows 95	English	Pass
	Microsoft Plus!	1.0	Windows 95	Chinese	Pass
	QEMM386	8.00	Windows 95	English	Pass
	Sidekick	2.0	DOS	English	Pass
Word Processor	PE III (DW3)	4.0	DOS	English	Pass
	AMI Pro for Windows	3.1	Windows	English	Pass
	AMI Pro for Windows	3.1	Windows	Chinese	Pass
	Word Pro for Windows96		Windows	Chinese	Pass
	MS Word for Windows	6.0	Windows	English	Pass
	MS Word for Windows	6.0	Windows	Chinese	Pass
	Word Prefect for Windows	6.0	Windows	English	Pass
	WordPerfect	6.0	Windows	English	Pass